not, of course, rule out the possibility of sympatry between *tyrianthina* and *baroni* on the western side of the western Andes. If, indeed, interspecific competition does occur between them, the future of *baroni* as a viable species might be in jeopardy; and in addition continuing interference with the plant communities by man could emerge as the main factor for the blurring of ecotonal barriers to interspecific competition.

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Observations on nestlings of the Long-tailed Hermit *Phaethornis superciliosus*

by Peter J. Hudson

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The Long-tailed Hermit *Phaethornis superciliosus* is a common hummingbird in the lowland forests of Panama (Wetmore 1968) and is found throughout the humid lowlands of central and south America from Mexico to eastern Bolivia and Brazil. Some aspects of the breeding biology of this species have been described by Skutch (1964), but no detailed quantitative information exists on the growth and parental care of the nestlings.

On 15 February 1979 I found a nest of the Long-tailed Hermit containing 2 eggs. The nest was attached to the end of a palm frond (*Calyptrogyne sp.)* growing in the flood plain of the Rio Aila in the San Blas Province of Panama (8° 48'N, 77° 40'W). On 17 February the nest contained one chick and one egg and on 18 February (Day 1), when observations began, there were 2 chicks, one between 1 and 3 days old and a second less than 1 day old. With the exception of 18 March, diurnal observations were conducted continually from 9.00 a.m. on 18 February to 6.55 p.m. on 12 March, when the second chick fledged.

On 19 February while the female was absent from the nest I cut the palm frond carrying the nest and inserted a 50g Pesola balance between the frond and the nest. The weight of the nest and the chicks to the nearest 0.25g was recorded hourly through binoculars from c. 7 m. After both chicks had fledged the weight of the nest was noted and subtracted from all values. The periods of brooding and the number of visits by the adult were also recorded.

The first chick fledged on 10 March (Day 21) aged 22-24 days and weighing 6.25g. The second fledged on 12 March (Day 23) aged 23 days and weighing 6.75g. Skutch (1964) recorded the age at fledging of 2 chicks at one nest as 22 and 23 days and Davis (*in* Skutch 1964) described a nestling which fledged between 23 and 27 days of age.

Only one adult Long-tailed Hermit was observed at the nest; since sexes are similar and only females of the family Trochilidae feed the young (Wetmore 1968) I took this bird to be a female. The female's weight was recorded 3 times on 20 February during periods of brooding, these were 5.25g at 6.15 a.m., 5.00g at 8.51 a.m. and 6.00g at 11.33 a.m. The weight growth curves of the summed weight for the 2 nestlings is shown in Figure 1. It should be noted that these figures are the mean weight of the nest and young minus the weight of the nest recorded on 12 March and as such does not account for any variations in the weight of the nest during the period of observation.

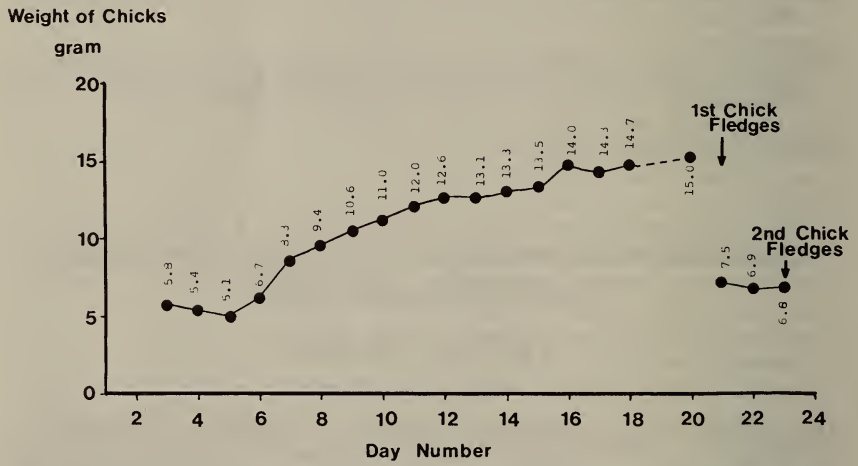

Figure 1. Weight (average 15 min readings) of 2 Long-tailed Hermit *Phaethornis superciliosus* chicks combined in relation to day number (approximate age). No readings were taken on day 19.

The nestlings were brooded on Day 1 for 22% of the daylight hours observed, in 4 periods averaging 29.75 mins; on Day 2 for 15% of the day in 7 periods averaging 15.6 mins; and on Day 3 for 4% of the day in 2 periods averaging 14.5 mins. The adult did not brood the nestlings during the day after Day 3.

The number of feeding visits per day to the chicks increased from 5 to 17 per day and decreased after the first chick fledged on Day 21 (Table 1).

Table 1.
Number of feeding visits to nest by parent *Phaethornis superciliosus* in relation to approximate age of its 2 chicks

Day No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
Feeds	5	9	9	9	8	9	14	13	13	12	15	15	14	15	11	14	15	17	—	14	13	11	2

The number of feeding visits to the chicks tended to be greater in the morning and decreased after noon ($p<0.05$) (Table 2).

Table 2.
Number of feeding visits to nest by parent *Phaethornis superciliosus* in relation to time of day (n=22 days)

Time	6a.m.	7	8	9	10	11	12 noon	1 p.m.	2	3	4	5
Feeds	17	38	24	23	23	27	20	18	19	14	19	11

Before feeding the chicks the adult hummingbird would often call and then hover or perch on the nest. On one occasion the hummingbird was seen removing arthropods from a spider's web close to the nest site and on another occasion feeding at an inflorescence of *Brownea rosa-de-monte* which was being monitored for another study (Hudson & Sugden 1984).

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The Status of *Geospiza magnirostris* on Isla Floreana, Galapagos

by David W. Steadman

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Gould (1837) described 2 large-billed forms of Darwin's finches as *Geospiza magnirostris* and *G. strenua*, based upon the specimens collected in 1835 by various members of the *Beagle* Expedition. Lack (1946) regarded *G. strenua* as a race of *G. magnirostris*, a treatment with which I concur. Gould (1837) designated no particular island as the type locality of either new species, although later he stated specifically (Gould 1841) that *G. magnirostris* was from Floreana (Charles) and San Cristobal (Chatham), and not from Santiago (James), where *G. strenua* occurred. Nevertheless, the status of *Geospiza magnirostris* on Floreana has been controversial. The basic questions have been: 1) Did *G. magnirostris* ever occur on this island? 2) If so, is it now extinct? 3) If *G. magnirostris* occurred (or still occurs today) on Floreana, is it represented by the larger (*G. m. magnirostris*) or the smaller (*G. m. strenua*) of its 2 races? Recent historic and palaeontological research has answered questions 1 and 3; *G. m. magnirostris* occurred on Floreana and San Cristobal in 1835 and probably was the most common land bird in the arid lowlands of Floreana in prehistoric times (Sulloway 1982a, b; Steadman in press). The prehistoric status of *G. m. magnirostris* on San Cristobal awaits the discovery of fossils there. In this paper I will address the question of whether or not *G. magnirostris* is extinct on Floreana.

Based upon the *Beagle* specimens, most ornithologists of the late 1800's and early 1900's regarded *G. magnirostris* to have occurred upon Floreana and perhaps San Cristobal as well. However, Swarth (1931: 141–149) believed that the 7